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Diversity and inclusion in digital scholarship and pedagogy: the case of *The Programming Historian*

This article presents several inclusion and diversity policies and strategies for digital scholarship and pedagogy, using *The Programming Historian* as a case study. By actively supporting and working towards gender diversity, as well as multilingualism, cultural inclusivity and open access, *The Programming Historian* aims to further enhance what is meant to be open in the context of access, diversity and inclusion in digital scholarship and pedagogy.

Keywords

Digital pedagogy; diversity; multilingualism; open access



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The Programming Historian: identity and history

This article describes work undertaken by the Editorial Board of *The Programming Historian* to situate diversity at the heart of our open access (OA) project. Founded in 2008 by William J Turkel and Alan MacEachern, *The Programming Historian*¹ publishes novice-friendly, peer-reviewed tutorials that help humanists learn a wide range of digital tools, techniques and workflows to facilitate research and teaching. Turkel and MacEachern focused their initial lessons on the programming language Python, and these were published OA as a *Network in Canadian History & Environment* (NiCHE) 'Digital Infrastructure' project. In 2012 *The Programming Historian* expanded its editorial team and launched as an OA peer-reviewed scholarly journal of methodology for digital historians. In 2016 we added a Spanish-language sub-team to the initial English-language team, and in 2017 started publishing translated tutorials under the title *The Programming Historian en español*. In 2018 we hosted our first Spanish-language writing workshop in Bogotá, Colombia, issued a call for new tutorials in Spanish, and began to plan for translating tutorials into English. In the same year we added a French-language sub-team and in 2019 launched *The Programming Historian en français*. At the time of writing, *The Programming Historian* has published 127 tutorials: 75 in English, 40 in Spanish, and two in French.

The Editorial Board of *The Programming Historian* (consisting of 16 individuals at the time of publication) has long considered its work as consisting of much more than merely running journals. All three publications are embedded within the existing infrastructure of scholarly publications: they all have ISSNs and are listed in *The Directory of Open Access Journals*.² All tutorials are subject to peer review, and come with all the usual publications metadata associated with a journal. But, even with these features, *The Programming Historian* is more properly an ongoing project: it requires software development, conducts community surveys and solicits community input. It also seeks to actively rebalance global access to computational skills and methods, and advocates against the bifurcation of technical and scholarly roles in digital research. Additionally, it takes seriously its commitment to transparency, accountability and diversity.

In this case study we explore four aspects of *The Programming Historian* as a project, with a focus on practice that is intended to work towards diversifying digital history. In the first part we examine the conception and implementation of our policy on editorial board diversity. In the second part we discuss our translation initiatives: how they came about, the new structures that were required to support them, and how translation has created not only new audiences for our work but has also drawn in reviewers, editors and supporters from communities not previously considered by the Editorial Board. Thirdly, we explore a consequence of translation: the need to examine the Anglophone preconceptions and prejudices of our documentation, workflows and tutorials, and a drive to ensure that all our tutorials – English, Spanish, or French – are written for international audiences. Finally, we describe our open ethos: a key part of our socio-technical project infrastructure. We argue that publishing of OA material alone does not rebalance global access to computational skills and methods. Only by making our process open (from site updates to peer review) have we been enabled to work towards our ambition of diversifying digital history.

'Only by making our process open ... have we been enabled to work towards our ambition of diversifying digital history'

***The Programming Historian* and diversity**

Diversity policy – gender and cultural

Since its relaunch as a publication in 2012, *The Programming Historian* has been actively committed to diversity. To quote from our diversity policy: 'we insist on a harassment-free space for all contributors to the project, regardless of gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, age or religion, or technical experience'.³ Given the complexities of gender expressions and national identity, we recognize that this is not an easy conversation with easy solutions. We see therefore the text of our policy as a living document and hope it can create opportunities for further conversation.

'our commitment to diversity also extends to our Editorial Board'

At times, despite these commitments, *The Programming Historian* has become aware of the ways in which its own structure, processes and Editorial Board might inadvertently be reinforcing barriers to access (see, for example, Adam Crymble's research⁴). Addressing these shortcomings and honouring these commitments is a process and requires ongoing work. To that end, our commitment to diversity also extends to our Editorial Board, and our diversity policy⁵ ensures that members from any one gender or any one nationality do not comprise more than 50% + 1 of the members on the board. This policy ensures that the project continues to benefit from diverse viewpoints. In terms of authors' diversity, at the time of writing *The Programming Historian* contained tutorials written by 72 authors (55 men and 17 women) affiliated with institutions from UK, Belgium, Canada, and the USA.

At the time of writing, the Editorial Board has eight editors (four men and four women) affiliated with universities from the USA and the UK; the Spanish Editorial team has five members (three men and two women) affiliated with institutions from Mexico, Germany, the USA and Colombia, and the French Editorial team has three members (one man, two women) affiliated with institutions from France and Canada. Any time the Board grows or

- 3 shrinks, the diversity policy ensures that we examine anew our make-up to ensure that we are doing the best we can to represent and address the needs of our diverse international audience.

Translation

Full-language initiatives

As mentioned earlier, in 2016 *The Programming Historian* added a Spanish-language sub-team to the initial English-language team, and we launched *The Programming Historian en español* with Spanish translations of existing lessons. After the writing workshop in Bogotá, Colombia, we started the editorial process to add original tutorials in Spanish, and we have just published the first original Spanish lesson. In 2018 the French-language sub-team joined the project, and in 2019 *The Programming Historian en français* was launched.

'now a proudly
multilingual project'

The Programming Historian is now a proudly multilingual project involving a large team. Translation requires extensive teamwork among the language sub-teams and co-ordination across our editorial team. But translation is not purely a matter of converting lessons from English into another language. These new full-language initiatives have challenged technical infrastructure and our operation as an OA scholarly publication.

For example, as we are committed to publishing openly reviewed tutorials to a high standard, there is an extensive set of technical, editorial and administrative processes and policies in place (from peer review, technical infrastructure to ISSN and indexing). As new language sub-teams have joined the project, we have endeavoured to ensure consistency in the implementation of these processes and policies, whilst at the same time ensuring that lessons from the work of the sub-teams can enrich and enhance the project as a whole. To this end, we put in place the Additional Language Sub-Teams Policy,⁶ a document that has the function of underscoring the effort and commitment that a translation initiative requires of a language sub-team, both in terms of development and maintenance.

Ad hoc translation

Initiating and hosting a language initiative requires a huge effort and commitment both in terms of development and maintenance. With this in mind, our decision to integrate full translation initiatives has been carefully thought through. A by-product of this is our work to support and encourage ad hoc translation of *The Programming Historian* tutorials.

Since this is an OA publication, all our lessons are published under the Creative Commons Attribution licence (CC BY) and this allows anyone to distribute, remix, reuse and build upon the lesson as long as the original source is credited. By choosing one of the more liberal of the CC licences, we allow derivative works of the lessons, including translations (and even more creative adaptations of them), and we enable onward reuse.

'map our audience's
linguistic diversity and
enable creative reuse
of the project'

Although we are not able to host or maintain ad hoc translations as part of our own infrastructure, we actively encourage ad hoc translations by providing information and tips on the translation process based on the existing language initiatives. Through ad hoc translations, we will be able to celebrate once more the benefits of OA educational content, to map our audience's linguistic diversity and enable creative reuse of the project.

Internationalization

Writing for an international audience

The Programming Historian editors, authors and readers live all around the world and operate in a range of language and cultural contexts. Publishing in more than one language, as we have done since 2017, is helping us to reach that global audience, and we have an ambition to – where possible – translate all published tutorials across our language initiatives.

But translation alone is not enough to ensure reaching an audience. Through our work translating and adapting the tutorials from English to Spanish, we came to understand that a global project places additional responsibilities on authors, editors and reviewers. And so in April 2018 we developed our guidelines on writing for an international audience⁷ that formalize a requirement for authors to take steps to write tutorials that are accessible to as many people as possible.

The guidelines begin by recognizing that not all methods or tools are fully accessible to international audiences. They then make specific recommendations that emerge from our experience of translation. Initially, they ask authors to consider whether their chosen method is reproducible in languages other than those in which they have advanced proficiency. In part this relates to choosing to write tutorials for digital research tools with multilingual documentation, but it also relates to the anglophone assumptions of some of these tools. This is particularly acute for text analysis tools, which we know from experience do not always support different character sets (e.g. accented characters, non-Latin scripts, etc.). Building on this, our guidelines ask that authors consider the primary sources they chose for their tutorial, and whether alternative data sets from outside their geographical expertise can be suggested for readers to explore. Finally, we ask that authors consider international audiences when constructing their prose, avoiding language that is nationally or regionally specific. So, we ask authors to be sensitive to how specific cultural references, idiomatic expressions, or tones, might not register for all audiences, and, in addition, how readers might not be familiar with persons, organizations, or historical details specific to a particular culture. For example, a lesson that might joke, 'Don't throw away your shot! Try text analysis today!' will parse for people who have seen the play *Hamilton*, but even in this case we cannot assume that everyone will understand the reference. Readers without that cultural familiarity may be confused. We also ask that examples of code and metadata use internationally recognized standards for date and time formats. Taken together, these guidelines not only ease translation but they also work towards ensuring that all of our international audiences find the tutorials we publish approachable and intelligible.

'we ask that authors consider international audiences'

'we brought together 22 humanities scholars from across the Americas'

As part of this internationalization strategy, in August of 2018 we hosted a Writing Workshop in Bogotá,⁸ Colombia. With sponsorship from the British Academy, we brought together 22 humanities scholars from across the Americas (Chile, Argentina, Cuba, Mexico, Colombia, Brazil, Canada and the USA) with the objective of writing tutorials on digital humanities methodologies that specifically addressed research needs in Latin America and the Hispanic world. Until now, *The Programming Historian* had exclusively contained lessons originally written in English that were later translated into Spanish. We are beginning to reverse this, and we have received our first lessons originally written in Spanish,⁹ ready to be translated in the opposite direction.

Neutral political policy

As part of our internationalization agenda, we developed a neutral political policy.¹⁰ *The Programming Historian* is an international publication and welcomes readers and contributors with a wide range of political, cultural and religious views. While the members of our Editorial Board are undoubtedly passionate about a range of issues, we decided that *The Programming Historian* and the Editorial Board must remain apolitical with regards to party politics, elections, referendums and matters of international relations. This extends to but is not limited to posts on *The Programming Historian* blog, and any social media outlets maintained by or on behalf of *The Programming Historian*. Editors are free to express their own views, but should do so in a manner that makes it clear that they speak on behalf of themselves and not the project or its editors.

Open access/open ethos

For *The Programming Historian*, OA is about not only offering freely accessible tutorials on digital methods and tools to a truly international and wide audience, but also developing an overall workflow that embraces the values of transparency, collaboration, mutual respect and open peer review in scholarly communication.

To this end, we are committed to and are actively working towards making as much as possible of our process, communications, decisions and workflow (from site updates to policy discussion) publicly available on GitHub, a platform for sharing, managing and versioning coding projects. The centrepiece of our open ethos is that the peer review for each tutorial happens in public. And so while each tutorial receives the committed attention of a particular editor and pair of reviewers, each review also can, for a time, receive input from anyone through the GitHub interface. This process has led to fruitful – if challenging – discussions about inclusion, intellectual diversity and internationalization that would not be possible in a closed peer-review pipeline.

‘The centrepiece of our open ethos is that the peer review for each tutorial happens in public’

In addition, the project engages with the technical protocols of GitHub as a means of deliberately slowing down its procedures in order to focus, in public, on the translation process. With the exception of new tutorials, each time an editor seeks to edit or add new text to the vast majority of pages on *The Programming Historian* website, those edits or additions must be approved by at least two fellow editors before they are ‘pushed’ to the live site. As all of our pages – from our diversity policy to author guidelines – are published (at present) in three languages, one of the approvers must come from a language sub-team. This not only alerts the relevant translation teams of the intention to add or change text, but it also starts a process whereby the proposed changes are not incorporated until they have been translated into each language in which we publish. The result is a slow process of simultaneous translation, but one that ensures internationalization is publicly incorporated into regular workflows rather than as an afterthought.

‘internationalization is publicly incorporated into regular workflows’

Conclusion – future directions

The Programming Historian, an OA online publication actively operating in multiple languages, has developed a model to address the problem of global and linguistic access to digital resources, methodologies and tools for the humanities. This commitment to linguistic and geographic diversity in the digital humanities means understanding the limits and possibilities of the institutional, historical, cultural and economic contexts in regions like Latin America. During the course of our work in first the Spanish-speaking and, latterly, the francophone world, the editors of *The Programming Historian* came to understand that OA alone cannot foster diversity and inclusion, rather what we found was that the expansion of a community of open practice raises new questions about what it means to be open in the context of access, diversity and inclusion. *The Programming Historian* has presented work at various international venues, and continues to actively seek out partnerships to promote these values. Thus, by bringing an inclusive process of internationalization and dialogue about these limitations to the fore, *The Programming Historian* hopes to serve as a model for future global collaborations.

‘the expansion of a community of open practice raises new questions’

Abbreviations and Acronyms

A list of the abbreviations and acronyms used in this and other *Insights* articles can be accessed here – click on the URL below and then select the ‘full list of industry A&As’ link: <http://www.uksg.org/publications#aa>

Competing Interests

The authors have declared no competing interests.

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